

**CLAIMS:**

1       1. A method for automatically switching remote shared devices in a dense server  
2       environment comprising the steps of:

3           receiving a request to access a shared device from a server blade; and  
4           issuing a query as to whether said shared device is being accessed;  
5           wherein if said shared device is not being accessed by said server blade then  
6       the method further comprises the steps of:

7           receiving a response to said query indicating that said shared device is  
8       not available; and

9           waiting to receive a response that said shared device is available.

1       2. The method as recited in claim 1 further comprising the step of:  
2           determining if said shared device is being accessed.

1       3. The method as recited in claim 2, wherein if said shared device is not being  
2       accessed then the method further comprises the steps of:

3           connecting said shared device with said server blade; and  
4           transferring said request to access said shared device to said shared device.

1       4. The method as recited in claim 2, wherein if said shared device is being  
2       accessed then the method further comprises the step of:  
3           determining if said shared device is being accessed by said server blade.

1       5. The method as recited in claim 4, wherein if said shared device is being  
2       accessed by said server blade then the method further comprises the steps of:  
3           connecting said shared device with said server blade; and  
4           transferring said request to access said shared device to said shared device.

1       6. The method as recited in claim 1 further comprising the steps of:  
2           receiving said response that said shared device is available;

3           connecting said shared device with said server blade; and  
4           transferring said request to access said shared device to said shared device.

1       7.      The method as recited in claim 1, wherein said shared device is a Universal  
2           Serial Bus device.

1        8. A computer program product embodied in a machine readable medium for  
2 automatically switching remote shared devices in a dense server environment  
3 comprising the programming steps of:

4              receiving a request to access a shared device from a server blade; and  
5              issuing a query as to whether said shared device is being accessed;  
6              wherein if said shared device is not being accessed by said server blade then  
7 the computer program product further comprises the programming steps of:

8              receiving a response to said query indicating that said shared device is  
9 not available; and

10             waiting to receive a response that said shared device is available.

1        9. The computer program product as recited in claim 8 further comprises the  
2 programming step of:

3              determining if said shared device is being accessed.

1        10. The method as recited in claim 9, wherein if said shared device is not being  
2 accessed then the computer program product further comprises the programming  
3 steps of:

4              connecting said shared device with said server blade; and  
5              transferring said request to access said shared device to said shared device.

1        11. The computer program product as recited in claim 9, wherein if said shared  
2 device is being accessed then the computer program product further comprises the  
3 programming step of:

4              determining if said shared device is being accessed by said server blade.

1       12. The computer program product as recited in claim 9, wherein if said shared  
2 device is being accessed by said server blade then the computer program product  
3 further comprises the programming steps of:

4             connecting said shared device with said server blade; and  
5             transferring said request to access said shared device to said shared device.

1       13. The computer program product as recited in claim 8 further comprises the  
2 programming steps of:

3             receiving said response that said shared device is available;  
4             connecting said shared device with said server blade; and  
5             transferring said request to access said shared device to said shared device.

1       14. The computer program product as recited in claim 8, wherein said shared  
2 device is a Universal Serial Bus device.

1       15. A system, comprising:

2              one or more shared devices; and

3              a plurality of server blades coupled to said one or more shared devices via a  
4              service unit, wherein said service unit is configured to establish a connection between  
5              one of said one or more shared devices and one of said plurality of server blades  
6              requesting to access said one of said one or more shared devices;

7              wherein said requesting server blade comprises:

8                  a processor; and

9                  a memory unit coupled to said processor, wherein said memory unit is  
10                 operable for storing a program, wherein the program is operable for performing the  
11                 following programming steps:

12                      receiving a request to access said requested shared device from  
13              said requesting server blade; and

14                      issuing a query to said service unit as to whether said requested  
15              shared device is being accessed;

16                      wherein if said requested shared device is not being accessed  
17              by said requesting server blade then the program is further operable for performing  
18              the following programming steps:

19                      receiving a response to said query indicating that said  
20              requested shared device is not available; and

21                      waiting to receive a response that said requested shared  
22              device is available.

1       16. The system as recited in claim 15, wherein said service unit comprises:

2              a processor; and

3              a memory unit coupled to said processor, wherein said memory unit is  
4                 operable for storing a computer program, wherein the computer program is operable  
5                 for performing the following programming step:

6                      determining if said requested shared device is being accessed.

1       17. The system as recited in claim 16, wherein if said requested shared device is  
2       not being accessed then the computer program of said service unit is further operable  
3       for performing the following programming step:

4             connecting said requested shared device with said requesting server blade;

5             wherein if said requested shared device is not being accessed then the program  
6       of said requesting server blade is further operable for performing the following  
7       programming step:

8             transferring said request to access said requested shared device to said  
9       requested shared device.

1       18. The system as recited in claim 16, wherein if said requested shared device is  
2       being accessed then the computer program of said service unit is further operable for  
3       performing the following programming step:

4             determining if said requested shared device is being accessed by said  
5       requesting server blade.

1       19. The system as recited in claim 18, wherein if said requested shared device is  
2       being accessed by said requesting server blade then the computer program of said  
3       service unit is further operable for performing the following programming step:

4             connecting said requested shared device with said requesting server blade;

5             wherein if said requested shared device is being accessed by said requesting  
6       server blade then the program of said requesting server blade is further operable for  
7       performing the following programming step:

8             transferring said request to access said requested shared device to said  
9       requested shared device.

1       20. The system as recited in claim 15, wherein the program of said requesting  
2       server blade is further operable for performing the following programming step:

3             receiving said response that said requested shared devices is available.

1       21. The system as recited in claim 20, wherein the computer program of said  
2 service unit is further operable for performing the following programming step:

3             connecting said requested shared device with said requesting server blade;

4             wherein the program of said requesting server blade is further operable for  
5 performing the following programming step:

6             transferring said request to access said requested shared device to said  
7 requested shard device.

1       22. The system as recited in claim 15, wherein said requested shared device is a  
2 Universal Serial Bus device.